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<151> 2002-08-07

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Page 17

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Ser Ser Ser Gly Val Leu Met Val Gly Pro Asn Phe Arg Val Gly Lys
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Lys Ile Gly Cys Gly Asn Phe Gly Glu Leu Arg Leu Gly Lys Asn Leu
        50              55              60

Tyr Thr Asn Glu Tyr Val Ala Ile Lys Leu Glu Pro Ile Lys Ser Arg
65              70              75              80

Ala Pro Gln Leu His Leu Glu Tyr Arg Phe Tyr Lys Gln Leu Gly Ser
                85              90              95

Ala Gly Glu Gly Leu Pro Gln Val Tyr Tyr Phe Gly Pro Cys Gly Lys
            100             105             110

Tyr Asn Ala Met Val Leu Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu
        115             120             125

Phe Asp Leu Cys Asp Arg Thr Phe Thr Leu Lys Thr Val Leu Met Ile
    130             135             140

Ala Ile Gln Leu Leu Ser Arg Met Glu Tyr Val His Ser Lys Asn Leu
145             150             155             160

Ile Tyr Arg Asp Val Lys Pro Glu Asn Phe Leu Ile Gly Arg Gln Gly
            165             170             175

Asn Lys Lys Glu His Val Ile His Ile Ile Asp Phe Gly Leu Ala Lys
            180             185             190

Glu Tyr Ile Asp Pro Glu Thr Lys Lys His Ile Pro Tyr Arg Glu His
        195             200             205

Lys Ser Leu Thr Gly Thr Ala Arg Tyr Met Ser Ile Asn Thr His Leu
210             215             220

Gly Lys Glu Gln Ser Arg Arg Asp Asp Leu Glu Ala Leu Gly His Met
225             230             235             240

Phe Met Tyr Phe Leu Arg Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala
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Asp Thr Leu Lys Glu Arg Tyr Gln Lys Ile Gly Asp Thr Lys Arg Asn
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Thr Pro Ile Glu Ala Leu Cys Glu Asn Phe Pro Glu Glu Met Ala Thr
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Tyr Leu Arg Tyr Val Arg Arg Leu Asp Phe Phe Glu Lys Pro Asp Tyr
        290   295   300

Glu Tyr Leu Arg Thr Leu Phe Thr Asp Leu Phe Glu Lys Lys Gly Tyr
305   310   315   320

Thr Phe Asp Tyr Ala Tyr Asp Trp Val Gly Arg Pro Ile Pro Thr Pro
            325   330   335

Val Gly Ser Val His Val Asp Ser Gly Ala Ser Ala Ile Thr Arg Glu
            340   345   350

Ser His Thr His Arg Asp Arg Pro Ser Gln Gln Gln Pro Leu Arg Asn
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Gln Ser Leu Arg Thr Val Thr Ala Glu His Tyr Asp Val Asn Asn Ser
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Ala Ile Trp His Arg Gly Arg Gly Thr
385   390

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Ser Gly Thr Ser Ser Gly Val Leu Met Val Gly Pro Asn Phe Arg Val
        35   40   45

Gly Lys Lys Ile Gly Cys Gly Asn Phe Gly Glu Leu Arg Leu Gly Lys
    50   55   60

Asn Leu Tyr Thr Asn Glu Tyr Val Ala Ile Lys Leu Glu Pro Ile Lys
65   70   75   80

Ser Arg Ala Pro Gln Leu His Leu Glu Tyr Arg Phe Tyr Lys Gln Leu

Ser Ala Thr Glu Gly Val Pro Gln Val Tyr Tyr Phe Gly Pro Cys Gly
            100   105   110

Lys Tyr Asn Ala Met Val Leu Glu Leu Leu Gly Pro Ser Leu Glu Asp
        115   120   125

Leu Phe Asp Leu Cys Asp Arg Thr Phe Thr Leu Lys Thr Val Leu Met
    130   135   140

Ile Ala Ile Gln Leu Ile Thr Arg Met Glu Tyr Val His Thr Lys Ser
145   150   155   160

Leu Ile Tyr Arg Asp Val Lys Pro Glu Asn Phe Leu Val Gly Arg Pro
            165   170   175

Gly Thr Lys Arg Gln His Ala Ile His Ile Ile Asp Phe Gly Leu Ala
            180   185   190

Lys Glu Tyr Ile Asp Pro Glu Thr Lys Lys His Ile Pro Tyr Arg Glu
            195   200   205

His Lys Ser Leu Thr Gly Thr Ala Arg Tyr Met Ser Ile Asn Thr His
    210   215   220

Leu Gly Lys Glu Gln Ser Arg Arg Asp Asp Leu Glu Ala Leu Gly His
225   230   235   240

Met Phe Met Tyr Phe Leu Arg Gly Ser Leu Pro Trp Gln Gly Leu Lys
            245   250   255

Ala Asp Thr Leu Lys Glu Arg Tyr Gln Lys Ile Gly Asp Thr Lys Arg
            260   265   270

Ala Thr Pro Ile Glu Val Leu Cys Glu Asn Phe Pro Glu Glu Met Ala
            275   280   285

Thr Tyr Leu Arg Tyr Val Arg Arg Leu Asp Phe Phe Glu Lys Pro Asp
    290   295   300

Tyr Asp Tyr Leu Arg Lys Leu Phe Thr Asp Leu Phe Asp Arg Ser Gly
305   310   315   320

Phe Val Phe Asp Tyr Glu Tyr Asp Trp Ala Gly Lys Pro Leu Pro Thr
            325   330   335

Page 21

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Pro Ile Gly Thr Val His Thr Asp Leu Pro Ser Gln Pro Gln Leu Arg
            340             345             350


Asp Lys Thr Gln Pro His Ser Lys Asn Gln Ala Leu Asn Ser Thr Asn
            355             360             365


Gly Glu Leu Asn Ala Asp Asp Pro Thr Ala Gly His Ser Asn Ala Pro
            370             375             380


Ile Thr Ala Pro Ala Glu Val Glu Val Ala Asp Glu Thr Lys Cys Cys
385             390             395             400


Cys Phe Phe Lys Arg Arg Lys Arg Lys Ser Leu Gln Arg His Lys
            405             410             415
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<400> 15

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Met Asp Phe Asp Lys Lys Gly Gly Lys Gly Glu Thr Glu Glu Gly Arg
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Arg Met Ser Lys Ala Gly Gly Gly Arg Ser Ser His Gly Ile Arg Ser
            20              25              30


Ser Gly Thr Ser Ser Gly Val Leu Met Val Gly Pro Asn Phe Arg Val
            35              40              45


Gly Lys Lys Ile Gly Cys Gly Asn Phe Gly Glu Leu Arg Leu Gly Lys
            50              55              60


Asn Leu Tyr Thr Asn Glu Tyr Val Ala Ile Lys Leu Glu Pro Ile Lys
65              70              75              80


Ser Arg Ala Pro Gln Leu His Leu Glu Tyr Arg Phe Tyr Lys Gln Leu
            85              90              95


Ser Ala Thr Glu Gly Val Pro Gln Val Tyr Tyr Phe Gly Pro Cys Gly
            100             105             110


Asn Tyr Asn Ala Met Val Leu Glu Leu Leu Gly Pro Ser Leu Glu Asp
            115             120             125


Leu Phe Asp Leu Cys Asp Arg Thr Phe Thr Leu Lys Thr Val Leu Met
            130             135             140
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Ile Ala Ile Gln Leu Ile Thr Arg Met Glu Tyr Val His Thr Lys Ser
145   150   155   160

Leu Ile Tyr Arg Asp Val Lys Pro Glu Asn Phe Leu Val Gly Arg Pro
                165   170   175

Gly Thr Lys Arg Gln His Ala Ile His Ile Ile Asp Phe Gly Leu Ala
                180   185   190

Lys Glu Tyr Ile Asp Pro Glu Thr Lys Lys His Ile Pro Tyr Arg Glu
                195   200   205

His Lys Ser Leu Thr Gly Thr Ala Arg Tyr Met Ser Ile Asn Thr His
    210   215   220

Leu Gly Lys Glu Gln Ser Arg Arg Asp Asp Leu Glu Ala Leu Gly His
225   230   235   240

Met Phe Met Tyr Phe Leu Arg Gly Ser Leu Pro Trp Gln Gly Leu Lys
                245   250   255

Ala Asp Thr Leu Lys Glu Arg Tyr Gln Lys Ile Gly Asp Thr Lys Arg
                260   265   270

Ala Thr Pro Ile Glu Val Leu Cys Glu Asn Phe Pro Glu Glu Met Ala
            275   280   285

Thr Tyr Leu Arg Tyr Val Arg Arg Leu Asp Phe Phe Glu Lys Pro Asp
    290   295   300

Tyr Asp Tyr Leu Arg Lys Leu Phe Thr Asp Leu Phe Asp Arg Ser Gly
305   310   315   320

Phe Val Phe Asp Tyr Glu Tyr Asp Trp Ala Gly Lys Pro Leu Pro Thr
                325   330   335

Pro Ile Gly Thr Val His Thr Asp Leu Pro Ser Gln Pro Gln Leu Arg
                340   345   350

Asp Lys Thr Gln Pro His Ser Lys Asn Gln Ala Leu Asn Ser Thr Asn
                355   360   365

Gly Glu Leu Asn Ala Asp Asp Pro Thr Ala Gly His Ser Asn Ala Pro
    370   375   380

Ile Thr Ala Pro Ala Glu Val Glu Val Ala Asp Glu Thr Lys Cys Cys
385   390   395   400

Page 23

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Cys Phe Phe Lys Arg Arg Lys Arg Lys Ser Leu Gln Arg His Lys
              405         410                     415
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<210>   16
<211>   447
<212>   PRT
<213>   Homo sapiens
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<400>   16
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Met Glu Asn Lys Lys Lys Asp Lys Asp Lys Ser Asp Asp Arg Met Ala
1               5                   10                  15
```

```
Arg Pro Ser Gly Arg Ser Gly His Asn Thr Arg Gly Thr Gly Ser Ser
                20                  25                  30
```

```
Ser Ser Gly Val Leu Met Val Gly Pro Asn Phe Arg Val Gly Lys Lys
            35                  40                  45
```

```
Ile Gly Cys Gly Asn Phe Gly Glu Leu Arg Leu Gly Lys Asn Leu Tyr
        50                  55                  60
```

```
Thr Asn Glu Tyr Val Ala Ile Lys Leu Glu Pro Met Lys Ser Arg Ala
65                  70                  75                  80
```

```
Pro Gln Leu His Leu Glu Tyr Arg Phe Tyr Lys Gln Leu Gly Ser Gly
                85                  90                  95
```

```
Asp Gly Ile Pro Gln Val Tyr Tyr Phe Gly Pro Cys Gly Lys Tyr Asn
                100                 105                 110
```

```
Ala Met Val Leu Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asp
            115                 120                 125
```

```
Leu Cys Asp Arg Thr Phe Ser Leu Lys Thr Val Leu Met Ile Ala Ile
        130                 135                 140
```

```
Gln Leu Ile Ser Arg Met Glu Tyr Val His Ser Lys Asn Leu Ile Tyr
145                 150                 155                 160
```

```
Arg Asp Val Lys Pro Glu Asn Phe Leu Ile Gly Arg Pro Arg Asn Lys
                165                 170                 175
```

```
Thr Gln Gln Val Ile His Ile Ile Asp Phe Gly Leu Ala Lys Glu Tyr
                180                 185                 190
```

```
Ile Asp Pro Glu Thr Lys Lys His Ile Pro Tyr Arg Glu His Lys Ser
            195                 200                 205
```

```
Leu Thr Gly Thr Ala Arg Tyr Met Ser Ile Asn Thr His Leu Gly Lys
210             215             220

Glu Gln Ser Arg Arg Asp Asp Leu Glu Ala Leu Gly His Met Phe Met
225             230             235             240

Tyr Phe Leu Arg Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Asp Thr
            245             250             255

Leu Lys Glu Arg Tyr Gln Lys Ile Gly Asp Thr Lys Arg Ala Thr Pro
            260             265             270

Ile Glu Val Leu Cys Glu Asn Phe Pro Glu Met Ala Thr Tyr Leu Arg
            275             280             285

Tyr Val Arg Arg Leu Asp Phe Phe Glu Lys Pro Asp Tyr Glu Tyr Leu
290             295             300

Arg Lys Leu Phe Thr Asp Leu Phe Asp Arg Lys Gly Tyr Met Phe Asp
305             310             315             320

Tyr Glu Tyr Asp Trp Ile Gly Lys Gln Leu Pro Thr Pro Val Gly Ala
            325             330             335

Val Gln Gln Asp Pro Ala Leu Ser Ser Asn Arg Glu Ala His Gln His
            340             345             350

Arg Asp Lys Met Gln Gln Ser Lys Asn Gln Ser Ala Asp His Arg Ala
            355             360             365

Ala Trp Asp Ser Gln Gln Ala Asn Pro His His Leu Arg Ala His Leu
370             375             380

Ala Ala Asp Arg His Gly Gly Ser Val Gln Val Val Ser Ser Thr Asn
385             390             395             400

Gly Glu Leu Asn Thr Asp Asp Pro Thr Ala Gly Arg Ser Asn Ala Pro
            405             410             415

Ile Thr Ala Pro Thr Glu Val Glu Val Met Asp Glu Thr Lys Cys Cys
            420             425             430

Cys Phe Phe Lys Arg Arg Lys Arg Lys Thr Ile Gln Arg His Lys
            435             440             445
```